



Air Quality Permitting Statement of Basis

July 18, 2006

Tier I Operating Permit No. T1-050502

**Idaho National Laboratory Research Center (IRC)
Idaho Falls, Idaho**

Facility ID No. 019-00048

Prepared by:

**JR. FUENTES
COMPLIANCE ANALYST**

PROPOSED for PUBLIC COMMENT

Table of Contents

ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE	3
1. PURPOSE	4
2. FACILITY DESCRIPTION.....	4
4. APPLICATION SCOPE	4
5. SUMMARY OF EVENTS.....	4
6. PERMIT ANALYSIS	5
7. REGULATORY ANALYSIS.....	5
8. PERMIT ANALYSIS	6
9. INSIGNIFICANT ACTIVITIES	6
10. ALTERNATIVE OPERATING SCENARIOS	6
11. TRADING SCENARIOS.....	7
12. COMPLIANCE SCHEDULE.....	7
13. PERMIT REVIEW.....	7
14. ACID RAIN PERMIT.....	7
15. REGISTRATION FEES	8
16. RECOMMENDATION	8

Acronyms, Units, and Chemical Nomenclature

AQCR	Air Quality Control Region
CAA	Clean Air Act
CFR	Code of Federal Regulations
Ci/yr	curies per year
CO	carbon monoxide
DEQ	Department of Environmental Quality
DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
gr/dscf	grains per dry standard cubic feet
hp	horsepower
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
INL	Idaho National Laboratory
IRC	INL Research Center
lb/hr	pounds per hour
mrem/yr	millirem per year
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
PM	particulate matter
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PW	process weight
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO ₂	sulfur dioxide
U.S.C.	United States Code
UTM	Universal Transverse Mercator
VOC	volatile organic compound

1. PURPOSE

The purpose of this memorandum is to explain the legal and factual basis for this draft Tier I operating permit in accordance with IDAPA 58.01.01.362.

This Tier I operating permit replaces Tier I Permit No. T1-020526, issued August 28, 2003, the terms and conditions of which no longer apply.

The Department of Environmental Quality (DEQ) has reviewed the information provided by the Idaho National Laboratory Research Center (IRC), regarding the operation of its facility located in Idaho Falls. This information was submitted based on the requirements to submit a Tier I operating permit application in accordance with IDAPA 58.01.01.313.

2. FACILITY DESCRIPTION

Facility description has not changed as part of the Tier I renewal and no new emissions sources have been added. Please refer to Statement of Basis dated August 5, 2003, for a complete facility description.

3. FACILITY/AREA CLASSIFICATION

Facility and area classification has not changed as part of the Tier I renewal and IRC's AIRS/AFS facility classification code remains B. A revised AIRS table is not included in the Appendix since there are no changes to the table as a result of this project. Please refer to the Technical Memorandum for Tier I Operating Permit dated October 24, 2002, and Statement of Basis dated August 5, 2003, for a complete facility/area classification description.

4. APPLICATION SCOPE

On April 28, 2005, and October 28, 2005, DEQ received a Tier I operating permit renewal application from IRC for the operation of its Idaho Falls research laboratory.

5. SUMMARY OF EVENTS

April 28, 2005	DEQ received Tier I operating permit renewal application.
July 1, 2005	DEQ requested additional application information.
October 27, 2005	Additional application materials received.
October 28, 2005	DEQ determines application complete.
June 16, 2006	DEQ provides draft permit to facility and to DEQ's Idaho Falls Regional Office for review.
July 11, 2006	DEQ receives IRC's comments

5.1 Permitting History

October 29, 2002	Initial Tier I Operating Permit No. 019-00048 issued.
August 28, 2003	Tier I Operating Permit No. 019-00048 amended, new permit No. T1-020526.

6. PERMIT ANALYSIS

6.1 *Basis of Analysis*

The following documents were relied upon in preparing this memorandum and the Tier I operating permit:

- Tier I Operating Permit No. 019-00048, issued October 29, 2002.
- Tier I Operating Permit No. T1-020526, issued August 28, 2003.
- Tier I Operating Permit renewal application received April 28, 2005.
- Compliance certification and Tier I Operating Permit renewal application received on October 27, 2005.

6.2 *Emissions Description and Emissions Inventory*

Emissions description and emissions inventory have not changed as part of the Tier I renewal. Please refer to Technical Memorandum for Tier I Operating Permit No. 019-00048, dated October 24, 2002, for a complete emissions description.

7. REGULATORY ANALYSIS

7.1 IDAPA 58.01.01.313.03 – Renewals of Tier I Operating Permits

This rule provides the regulatory time upon which the owner or operator of a Tier I source is required to submit a complete Tier I operating permit application. The IRC renewal application was submitted within the appropriate regulatory timeframe.

7.2 New Source Performance Standards (NSPS) – 40 CFR 60

The requirements under 40 CFR Part 60 do not apply to this project.

7.3 National Emission Standards for Hazardous Air Pollutants (NESHAPS) – 40 CFR Parts 61 & 63

The facility is subject to the radionuclide performance standard in accordance with 40 CFR Part 61, Subpart H. The facility shall record the annual possession quantities in curies per year (Ci/yr) of radionuclides identified 40 CFR 61, Appendix E, Table 1.

If the annual possession quantities of any radionuclide exceeds the quantity listed in 40 CFR Part 61, Appendix E, Table 1, the facility shall comply with the emission monitoring and test procedures in accordance with 40 CFR 61.93.

Records shall be maintained documenting the source of input parameters, including the results of all measurements upon which they are based, the calculations and/or analytical methods used to derive values for input parameters, and the procedure used to determine possession quantities or the effective dose equivalent in accordance with 40 CFR 61.95. The facility shall prepare an annual report in accordance with 40 CFR 61.94(a) and submit the report to the EPA headquarters with a copy to EPA Region 10 and to DEQ by June 30. The annual report shall include, but is not limited to, the annual possession quantities of each radionuclide at the facility or the results of monitoring and dose calculations required in 40 CFR 61.93. Applicable information required by 40 CFR 61.94(b), (c), and (d) shall be included in the annual report.

8. PERMIT ANALYSIS

This section describes only the changes made to the permit as a result of this permitting action. Existing permit conditions are identified as “Existing Permit Conditions”, and revised permit conditions are identified as “Revised Permit Conditions.”

Facility Wide-Conditions

8.1 Existing Permit Condition 2.7

Existing Permit Condition 2.7 requires the permittee not to discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity.

8.2 Revised Permit Condition 2.7

Revised Permit Condition 2.7 will add “and Permit Condition 2.8.” to the final sentence in order to clarify the visible emissions inspection requirements are contained in Permit Condition 2.8 and will state as follows:

The permittee shall not discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, nitrogen oxides, and/or chlorine gas is the only reason for the failure of the emission to comply with the requirements of this section and Permit Condition 2.8.

All other permit conditions have not changed as part of the Tier I renewal.

Radionuclide Sources

8.3 Emission Unit Description

Emissions unit description has not changed as part of the Tier I renewal. Please refer to Technical Memorandum For Tier I Operating Permit dated October 24, 2002, for a complete emission unit description.

9. INSIGNIFICANT ACTIVITIES

Insignificant activities has not changed as part of the Tier I renewal. For a complete description, please refer to Table 6.1-Insignificant Activities contained in the Technical Memorandum For Tier I Operating Permit dated October 24, 2002.

10. ALTERNATIVE OPERATING SCENARIOS

The facility did not request any alternative operating scenarios.

11. TRADING SCENARIOS

The facility did not request any trading scenarios or provide the alternative operating scenario(s) and all information required by IDAPA 58.01.01.314.08 and 322.04.

12. COMPLIANCE SCHEDULE

12.1 Compliance Plan

IRC located in Idaho Falls has certified compliance with all applicable requirements. No compliance plan was submitted.

12.2 Compliance Certification

IRC located in Idaho Falls is required to periodically certify compliance in accordance with General Provision 21. The facility shall submit an annual compliance certification for each emissions unit to DEQ and EPA, in accordance with IDAPA 58.01.01.314.10. The compliance certification report shall address the compliance status of each emissions unit with the terms and conditions of this permit.

13. PERMIT REVIEW

13.1 Regional Review of Draft Permit

DEQ provided the draft permit to its Idaho Falls Regional Office on June 16, 2006. The regional office did not have any comments regarding the draft permit.

13.2 Facility Review of Draft Permit

DEQ provided the draft permit to IRC located in Idaho Falls for its review on June 16, 2006. The facility provided written comments on the draft permit on July 11, 2006, and the comments have been incorporated into the permit.

13.3 Public Comment

Staff recommend that this statement of basis and draft Tier I operating permit be made available for public comment and affected states review. The Fort Hall Indian Reservation is within 50 miles of the Tier I source and is an affected state by definition. The Fort Hall Indian Reservation will be given notification of the public comment period and will be given copies of this statement of basis and the draft Tier I operating permit.

14. ACID RAIN PERMIT

This facility is not an affected facility as defined in 40 CFR 72 through 75; therefore, acid rain permit requirements do not apply.

15. REGISTRATION FEES

This facility is not a major facility as defined by IDAPA 58.01.01.008.10. Therefore, the facility is not subject to annual registration and registration fees in accordance with IDAPA 58.01.01.387

16. RECOMMENDATION

Based on the Tier I operating permit application and review of state rules and federal regulation, staff recommends that DEQ issue the draft Tier I Operating Permit No. T1-050502 to IRC for its Idaho Falls research facility. This permit renews the facility's existing Tier I operating permit. The permit will be made available for public comment as required by IDAPA 58.01.01.364. The project does not involve PSD permitting requirements.

DP/JRF/bf Permit No. T1-050502

G:\Air Quality\Stationary Source\SS Ltd\T1\INL-IRC\Public Comment\SB INL-IRC.doc